DOCUMENT RESUME

ED 226 525 EC 150 698

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TITLE Certification, Employment and Attrition of Special Education Professional Personnel in Michigan.
INSTITUTION Michigan State Dept. of Education, Lansing. Div. of Special Education.; Wayne State Univ., Detroit, Mich. Coll. of Education.
PUB DATE Sep 81
NOTE 36p.; For earlier reports of this study, see ED 189 740 and ED 207 294.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Administrators; *Disabilities; Elementary Secondary Education; *Employment Patterns; *Special Education Teachers; State Surveys; *Teacher Supply and Demand
IDENTIFIERS *Michigan

ABSTRACT

An update of a previous study produced information on the status of special education professional personnel in Michigan. Computer tape copies of the state's Professional Personnel Register and Certification Master File were analyzed. Detailed data are reported for eight basic tasks, including employment of beginning professional personnel in special education assignments in 1980 (a 4% increase over 1979-80, but less than the 7% or 8% growth rate of the preceding 2 years); new employment of personnel with 1 or more years teaching experience; return rate of special education teachers (an increasing number each year); attrition rate of special education professional personnel (a decreasing attrition rate with a larger proportion of staff returning subsequent years); number of new endorsements of certificate (an overall decrease in the number of total initial provisional certificate endorsements for all categories of special education); attrition rates of special education administrators (similar to those of special education teachers); and the need for special education teachers (continued growth in the number of new positions in categories of mentally impaired, speech impaired, social worker, emotionally impaired, school psychologist, hearing impaired, learning disabled, and occupational/physical therapy). Two main recommendations are offered: establishing a common coding system by Special Education Services and Teacher Preparation and Certification Services; and conducting a statewide study on the extent of absence among special education teachers, the qualifications of substitutes, and an annual census of substitutes used in the state's special education classes. Detailed tables are appended. (CL)

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CERTIFICATION, EMPLOYMENT AND ATTRITION OF SPECIAL EDUCATION PROFESSIONAL PERSONNEL IN MICHIGAN

by

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September , 1981

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EC150698

This study was undertaken to update a previous investigation(1) of Special Education professional personnel employed in Michigan Public Schools. The following questions or tasks were posed:

1. How many beginning professional personnel (zero years teaching experience) were newly employed in Special Education assignments in Michigan Public Schools in the 1980-81 school year?

2. How many professional personnel with one or more years teaching experience were newly employed in Special Education assignments in 1980-81?

3. How many Special Education professional personnel who were employed in 1979-80 returned to Special Education assignments in 1980-81?

4. For those Special Education professional personnel employed in 1980-81, provide descriptive summaries for each disability category using the following variables:

   A. Age distribution

   B. Salary distribution

   C. Employment levels

   D. Highest degree achieved

5. For each disability category, determine the cumulative attrition (loss of professionals) for each year through 1980-81.

6. For each disability category, determine the number of new endorsements recommended by Michigan teacher education institutions.

7. Provide descriptive statistics for Special Education administrators employed in Michigan Public Schools. This section should include information about age, initial teacher training, highest degree, current salary, and attrition of Special

Education administrators.

8. Provide additional empirical evidence of the availability of qualified substitute teachers employed to replace absent teachers in Special Education assignments in Michigan Public Schools during 1978-79.

PROCEDURES

For information regarding employment, the researcher used computer tape copies of the Michigan Professional Personnel Register for the school years 1973-74, 1974-75, 1975-76, 1976-77, 1977-78, 1978-79, 1979-80, and 1980-81. These tapes were provided by the Teacher Preparation and Certification services, Michigan Department of Education(2). The Register includes descriptive information about the professional personnel employed in Michigan Public Schools in the following Special Education assignments: mentally handicapped, speech impaired, orthopedically handicapped, school social worker, emotionally impaired, psychologist, homebound, teacher counselor for physically handicapped, blind, deaf, teacher of trainable, consultant for mentally handicapped, learning disabled, occupational/physical therapy, directors, supervisors.

In dealing with the question of attrition the researcher used the social security number of each person to determine whether or not he/she returned to a Special Education assignment in Michigan Public Schools.

For information regarding certification, the researcher used computer tape copies of the Teacher Certification Master File, which were provided

by the Teacher Preparation and Certification Services, Michigan Department of Education. This file indicates the endorsements for each certified teacher as well as the institution and year when the endorsements were recommended.

The Michigan Department of Education customarily counts the number of provisional certificates and endorsements issued during a fiscal year, July 1, 1980 through June 30, 1981. However, it takes time to secure, verify, and process the certificate recommendations from each teacher education institution. Since the annual report including graduates of December 1980 would not be completed until about September 1981, the researcher elected to use the calendar year, January 1 1980 through December 31 1980, for the count of provisional certificates and endorsements issued.

A sample of data for Special Education teachers was selected from 13 school districts in southeastern Michigan. The data indicated the number of teacher absences during the 1978-79 school year as well as the qualifications of substitute teachers employed by the districts to replace the absent Special Education teachers.

The social security numbers of these teachers and substitute teachers were used with the Michigan Professional Personnel Register and the Certification Master File to expand the available information about these teaching personnel.

FORTRAN and STDS programs were used with the conventional statistical programs to collect and analyze the data in order to answer the preceding questions.

RESULTS

Total Teachers Employed: Table 1 shows the number of teaching personnel who had either a major or secondary assignment in Special Education for each year from 1974-75 through 1980-81. The total number of Special Education teaching assignments in 1980-81 is 4% greater than the total in 1979-80. However, the 4% increase is substantially less than the 7% or 8% growth which characterized the preceding two years.

The table shows the number of persons in each category of Special Education, while the number in parentheses shows the annual percent change in number of persons employed in that category. For example, there were 3159 teachers of mentally impaired (SA) pupils employed in 1979-80 and that number increased in 1980-81 to 3243 teachers, which represents an increase of 3%. The total number of teachers in this category has increased each year, with the largest increase occurring in 1976-77 when 2898 teachers were employed representing an 18% increase over the preceding year. Similar interpretations may be obtained for each row in Table 1.

For 1980-81, the data indicate a substantial increase continued in the total number of assignments for teachers of learning disabled (SM); however, the 13% increase in 1980-81 is down from the substantially higher growth rates of the preceding years. There were small increases in the number of persons employed as social workers (SD) and in the areas of speech impaired (SB), school psychologist (SG), therapists (NU), emotionally impaired (SE), mentally impaired (SA), orthopedic (SC), deaf (SL). There were small decreases in the total number of teachers employed to work with homebound (SH), consultants for phys. Impaired (SI), blind (SK), consultants for mentally impaired (SU), and trainable (ST).

The classification of diagnostician (SF) is being replaced by the school psychologist and this explains the decrease in that category.

Newly Employed Teachers: Table 2 shows the number of newly employed Special Education teachers for each category between 1974-75 and 1980-81. There was a 14% decrease in the number of Special Education teachers newly employed in 1980-81. The total number of newly employed teachers had been stable at slightly more than 2000 persons employed each year for the last three years. However, the total number of persons hired in 1980-81 decreased 300 persons below the number employed the preceding year.

Table 3 provides descriptive statistics for beginning professional personnel (zero years teaching experience) who were newly employed in each category for the 1980-81 school year. Table 4 contains descriptive statistics of newly hired professionals who had previous teaching experience. For each category, the tables show the number of newly employed persons, sex, average age, highest degree, instructional levels, and average salary.

Table 5 provides a similar summary of the characteristics of all Special Education professional personnel who were employed in 1980-81. Average salary has increased about $2000 from 1979-80 to 1980-81. Table 6 shows the age distribution of persons employed in each category of Special Education. Approximately 80% of the teachers were 41 years of age or younger. This was also characteristic of the large numbers of teachers working with pupils who were mentally impaired (SA), speech impaired (SB), emotionally impaired (SE), and learning disabled (SM). Somewhat older personnel were typically found among social workers (SD), homebound (SH),

consultant for physically impaired (SI), school psychologists (SG), and consultants for mentally impaired (SU).

Table 7 provides a comparison of the number of Special Education professional personnel who returned from the preceding year and the number of newly employed professional personnel for that year.

The total number of Special Education professionals has increased about 6% each year since 1976-77. As the total number has increased, the number of returning Special Education teachers has also increased each year. The number of returning teachers represented about 83% of the total group in 1979-80, while the returning Special Education teachers represented about 87% of the total instructional group employed in 1980-81.

The number of newly employed Special Education professionals (experienced and beginning teachers) has declined from 2000 or 17% of the teacher group to 1755 or 13.5% of the Special Education teachers employed in 1980-81.

Attrition: Table 8 shows the cumulative loss of Special Education professionals during seven years. Of the 6889 teachers employed in 1973-74, there were 3945 or 57% of them remaining in Special Education assignments in 1980-81. If one looks along the diagonal rows of data in Table 8, the percent returning after one year is 88% to 90%. For the second year the rate of returning teachers is about 82% of the original group. Inspection of the diagonals also reveals that the attrition rate is decreasing and a larger proportion of the Special Education teaching staff is returning in subsequent years. For example, approximately 72% of the 1973-74 teachers

returned to Special Education assignments three years later in 1976-77. However, 78% of the Special Education teachers employed in 19777-78 were still in Special Education assignments three years later in 1980-81. This trend toward decreasing attrition is consistently found among Michigan teachers in assignments other than Special Education.

Table 9 shows the annual loss of Special Education personnel in various teaching assignments during the six years between 1974-75 and 1980-81. Columns "A" and "B" show that there were 2228 teachers of mentally impaired pupils (SA) employed in 1974-75, but only 1360 or 61% were employed in Special Education assignemnts in 1980-81. Annual attrition rates ranged from a high of 15% for therapists (NU) to a low of 6% for school psychologists (SG). Teachers of emotionally impaired (SE) and learning disabled (SM) pupils also had relatively high attrition levels.

New Endorsements of Certificate: Table 10 shows the estimated number of initial provisional certificate endorsements in Special Education for the calendar years of 1979 and 1980. For the second year in a row there was an overall decrease in the number of total initial provisional certificate endorsements. In this case the decrease was -272 endorsements or a drop of -18.8% in 1980 . This was a consistent decrease of new provisional endorsements for all categories.

Table 11 shows the initial provisional certificate endorsements for Special Education teachers recommended by Michigan institutions in the calendar year 1980. The institution is identified in the first column. The next eight columns show the Special Education code letters and the number of initial provisional certificate endorsements recommended by the

institution for each Special Education area. The last three columns of Table 11 show the Special Education endorsements recommended by an institution, the number of persons recommended, and the total number of initial provisional certificates (persons) recommended for all teaching fields in the calendar year 1980.

Table 12 indicates the total number of new endorsements in various categories of Special Education. When considered with information presented about initial provisional certificate endorsements in Table 11, it may be seen that about 25% of the new endorsements recommended by Michigan institutions are made for beginning teachers The remaining 75% of the endorsements in Special Education for 1980 were added to provisional/permanent/continuing certificates of experienced teachers. It appears that as teaching opportunities have diminished in some teaching fields in general education, experienced teachers have taken additional coursework at Michigan institutions in order to obtain an additional endorsement in one of the areas of Special Education.

The magnitude of this change is about three experienced teachers receiving a new endorsement for every beginning teacher endorsed. In the case of endorsements for learning disabled (SM), more than 90% of the recommendations by Michigan institutions were to persons with certificates acquired prior to 1980.

Out-of-State teachers accounted for about 10% of the new endorsements in Special Education awarded in 1980. However, out-of-State endorsements for initial provisional certification was greater than 20%. This prominence was noticeable in the areas of learning disabled (SM), and to a lesser

extent in mentally impaired (SA) and speech impaired (SB).

Special Education Administrators Table 13 provides descriptive statistics about Special Education directors (AR) and supervisors (AY) employed in Michigan Public Schools in 1980-81. Approximately 1/3 are females and the average age is slightly over 40. Average salary of directors is about $3500 higher than supervisors.

Table 14 indicates the institutions which provided the initial teacher preparation for this group of administrators. Only 66 or 16% of these administrators received initial professional training at institutions outside of Michigan. This implies a preference for internal promotion to these administrative positions. MSU, EMU, WSU, and WMU are prominent in the number of their graduates who advanced to these leadership positions. As shown in Table 14, most of the Special Education administrators have masters degrees and a large number have specialist or doctoral degrees.

Table 15 provides information about the attrition of Special Education administrators. The initial diagonal in the table shows a growth in number of administrators from 183 in 1974-75 to 387 in 1979-80 and there were 405 in 1980-81. The initial spurt of new administrative positions in Special Education was evident in the 40% increase from 1974-75 to 1975-76. There has been a continuing increase in positions since that time, but the rate of increase has been about 10% annually. However, this rate has dropped to a 5% increase in new administrative positions from 1979-80 to 1980-81. The attrition rates for Special Education administrators appear to be very similar to those of Special Education teachers as reported previously in Table 8.

Substitute Teachers: A sample of 1600 substitute teachers was obtained from 13 school districts in southeastern Michigan. These substitutes were employed during the 1978-79 school year. Within the sample there were substitutes who had some Special Education endorsement on a provisional/permanent/continuing certificate. The endorsements were determined by using the social security numbers of the substitutes to select endorsement records from the Certificate Master File.

A sample of 5100 teachers was obtained from these districts. It indicated the number of paid absences of all teachers employed by the districts during the 1978-79 school year. The social security numbers of these teachers were used to select the corresponding records from the Professional Personnel Register for 1978-79. In this way it was possible to relate the number of absences to teaching fields, age, experience, salary, and other factors.

The set of 524 Special Education teachers was selected from the sample of 5100 teachers. Table 16 shows some of the characteristics of this group. Some special areas (SA, SB, SD, SE, SM) had samples greater than 25 persons and the indications of days absent, absence rate, estimated total absences may be fairly accurate indicators of traits of Special EDucation personnel in public schools in southeastern Michigan.

As shown in the table, the absence rate is high for teachers of speech impaired (SB) and mentally impaired (SA), when compared to the absence rate for all teachers in the sample.

In section B of Table 16 there were other special areas reported but

the samples are very small and the numeric values may be unreliable. They are reported in order to provide some crude indication of the extent of absences among teachers in these special areas.

In Table 17 a comparison is drawn between absences of teachers in seven areas of Special Education and substitute teachers available in the district who had provisional/permanent/continuing certificate endorsements in these areas. Although the substitute teachers with Special Education endorsements also had endorsements in other teaching fields, it was assumed that all of their days as a substitute were in one of the areas of Special Education. This assumption was made in order to consider the maximum number of Special Education substitute teachers available to replace absent teachers in Special Education assignments.

In Table 17 there are 8 school districts selected from one county and 5 school districts chosen from another county in southeastern Michigan. If one considers only the totals in Table 17, it appears that there are shortages of qualified substitutes in learning disabilities (SM) and speech impaired (SB). However, school districts B, D, F, and M did not have a sufficient number of qualified substitutes for absent teachers of mentally impaired (SA). Similar deficiencies may be observed in the table for other school districts attempting to provide qualified substitute teachers in other areas of Special Education.

When qualified Special Education teachers were not available the school districts evidently used teachers with general education endorsements on provisional/permanent/continuing certificates or persons with 90-day permits. Of the 1685 substitutes in the sample, 137 had some

Special Education endorsement, 1057 others had provisional/permanent/continuing certificates, and 491 had special teaching permits requested by the school districts.

It may be that substitute teachers with some training in helping pupils with special impairments were used in all the districts to replace absent teachers in Special Education assignments. However, it is also possible that the districts may often be compelled to use substitute teaching personnel with little or no training in working with handicapped pupils.

The writer assumes that each and every one of the 180 days in the school year is important. This is slightly less than 1/2 of the calendar year. The loss of any one of these school days and the loss of learning opportunities which they provide is a substantial loss to the pupils.

Need for Special Education Teachers: The balance of supply and demand for teaching personnel depends upon the availability of adequate funds to employ the teachers needed by the schools. Michigan has made considerable progress in the last decade in defining goals and procedures necessary for educating handicapped children and youth. The State has also made impressive advances in allocating adequate funds to achieve those goals. It appears to the writer that this momentum will continue in spite of severe reductions in revenue available to the State. If we assume that local, State, and federal funds will be sufficient to enable school districts to comply with the provisions of Michigan's Mandatory Special Education Act, then we may estimate the level of demand for Special Education teachers in Michigan Public Schools.

The number of new teaching positions in Special Education has continued to increase in the following teaching assignments: mentally impaired (SA), speech impaired (SB), social worker (SD), emotionally impaired (SE), school psychologist (SG), hearing impaired (SL), learning disabled (SM), occupational/physical therapy (NU). The data indicate an end to the growth of new positions in public schools for the following areas: orthopedic (SC), homebound (SH), consultant for physically impaired (SI), consultant for mentally handicapped (SU), visually impaired (SK), trainable (ST).

One should be mindful that the extent of growth is small for some areas such as hearing impaired (SL), which may involve an increase of less than a dozen positions each year. Moreover, the sharp decrease in the hiring of beginning or experienced teachers shown in Table 10 should not be disregarded. Although there have been annual increases of more than 200 new positions in learning disabilities (SM), the immediate task is to secure and maintain those advances which have been established in providing a decent education for handicapped youth.

The annual attrition rate for Special Education teachers is about 10%, which is substantially higher than the 6% to 7% attrition rate which characterizes other teaching fields in K-12 school districts. However, the attrition rate for Special Education teacher is also decreasing.

The paucity of substitute teachers with adequate training in Special EDucation raises doubts about the extent of services provided. For example, teachers of speech impaired (SB) have a relatively high rate of absence, a typically high caseload, and there are few qualified speech therapists (SB)

in the pool of substitutes considered in this research paper. How can it be asserted that a continuous and thorough program is provided for pupils with speech impairments, when it is apparent that many pupils are missing several sessions of speech therapy throughout the school year?

It seems evident that there will be a continuing demand for more teachers in those areas where new positions have been created. The need for new personnel will be greater in areas where many new positions have been created each year e.g. Learning disabilities (SM), speech impaired (SB). In other Special EDucation areas the need for teachers will depend upon the rate of attrition for a given area and the school district's determination to secure qualified substitute teachers to replace absent Special Education teachers.

Recommendations: The two main recommendations of the previous study are reiterated:

1. The accuracy of future studies of the supply and demand for Special Education personnel will be substantially improved by establishing a common coding systems so that data files collected by the Special EDucation Services and by the Teacher Preparation and Certification Services can be related. It is the writer's understanding that efforts are underway to establish this common coding system.

2. There should be a statewide study to determine the extent of absence among Special Education personnel, the qualifications of substitute teachers used in their classes, and an annual census of substitute teachers utilized in Special Education classes in Michigan Public Schools.

The small sample of data collected in this study indicates that there is a need to improve the supply of qualified Special Education teachers who will be substitute teachers in their areas of expertise. The absence of data makes it difficult to estimate the extent of the deficiency throughout Michigan, but it may be a formidable one.

Providing qualified teachers to assist handicapped pupils every day of the school year is an important goal. The modest gains in learning and personal achievement are hard won by handicapped pupils and their teachers each and every day. We can only speculate upon the consequences of using untrained substitute teaching personnel to replace Special Education teachers who are absent several days during the school year.

Footnotes

1.Gary R. Smith, "Certification, Employment and Attrition of Special Education Professional Personnel in Michigan," Wayne State University, Detroit, Michigan, September, 1980.

2.Although the raw data were provided by the Teacher Preparation and Certification Services, Michigan Department of Education, the writer is responsible for the analysis and interpretation of that data.

TABLE 1 - SPECIAL EDUCATION PROFESSIONAL PERSONNEL EMPLOYED IN MICHIGAN PUBLIC SCHOOLS (1974-1981)

	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Ment.Imp. (SA)	2314	2452(06)	2898(18)	2985(03)	3051(02)	3159(04)	3243(03)
Speech Cor. (SB)	1153	1220(06)	1407(15)	1436(02)	1496(04)	1540(03)	1595(03)
Orth. (SC)	208	219(05)	274(25)	278(01)	279(00)	277(-01)	288(04)
Soc.Work (SD)	867	943(09)	925(-02)	936(01)	975(04)	996(02)	1015(02)
Emot.Imp. (SE)	911	1112(22)	1288(16)	1418(10)	1593(12)	1833(15)	1860(02)
Diag. (SF)	255	296(-23)	174(-11)	154(-11)	142(-08)	121(-15)	113(-07)
Psych. (SG)	297	398(34)	475(19)	530(11)	562(06)	623(11)	668(07)
Homebd. (SH)	149	154(03)	171(11)	161(-06)	157(-02)	171(09)	151(-12)
T.C.Phy. (SI)	152	140(-08)	122(-13)	121(-01)	106(-12)	110(04)	108(-02)
Blind (SK)	79	86(09)	141(64)	153(09)	159(04)	180(03)	171(-05)
Deaf (SL)	348	368(06)	440(20)	457(04)	463(01)	474(02)	486(02)
Learn.Dis. (SM)	122	663(443)	955(44)	1243(30)	1566(26)	1914(22)	2162(13)
Train. (ST)	469	508(08)	534(14)	511(-04)	543(06)	508(-06)	493(-03)
C.Ment.Hand. (SU)	207	215(04)	208(-03)	216(04)	231(07)	284(23)	276(-03)
Occupt./Phys. Ther. (NU)	91	142(56)	205(44)	220(07)	274(25)	317(16)	334(05)
TOTALS	7622	8816(16)	10217(16)	10819(06)	11597(07)	12507(08)	12983(04)

Interpretation; In 1979-80 there were 3159 teachers of mentally handicapped pupils (SA) and in 1980-81 there were 3243 teachers of mentally handicapped pupils (SA). This was a .03 increase.

TABLE 2 NEWLY EMPLOYED SPECIAL EDUCATION PROFESSIONAL PERSONNEL
IN MICHIGAN PUBLIC SCHOOLS (1974-1981)

	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Ment. Imp. (SA)	432	510 (18)	752 (47)	484 (-36)	480 (-01)	547 (14)	396 (-28)
Speech (SB)	234	207 (-12)	326 (56)	177 (-46)	221 (25)	205 (-07)	177 (-14)
Ortho (SC)	42	41 (-02)	101 (146)	42 (-58)	27 (-36)	32 (19)	33 (03)
Soc. Work (SD)	153	167 (-09)	99 (-41)	119 (20)	128 (08)	130 (02)	102 (-21)
Emot. Imp. (SE)	321	394 (23)	419 (06)	470 (12)	377 (-20)	358 (-05)	352 (-02)
Diagn. (SF)	25	16 (-36)	13 (-19)	8 (-38)	12 (50)	2 (-83)	4 (100)
Sch. Psych. (SG)	93	96 (03)	111 (16)	84 (-24)	96 (14)	97 (01)	68 (-30)
Homebd (SH)	31	20 (-35)	48 (140)	16 (-67)	16 (00)	14 (-13)	16 (14)
T.C.Phys. (SI)	15	14 (-07)	11 (-21)	12 (08)	6 (-50)	10 (67)	9 (-10)
Blind (SK)	18	20 (11)	69 (2.45)	26 (62)	21 (-15)	26 (24)	15 (-42)
Deaf (SL)	68	61 (10)	179 (193)	72 (-60)	66 (-08)	69 (05)	66 (-04)
Learn. Dis. (SM)	100	492 (392)	327 (-34)	365 (12)	399 (09)	421 (06)	398 (-05)
Trainable (ST)	103	91 (-12)	94 (03)	65 (-31)	81 (25)	31 (62)	38 (22)
C.M. Hand (SU)	32	25 (-22)	14 (-44)	19 (36)	21 (11)	25 (19)	17 (-32)
Occupt. Phys. Ther. (NU)	40	63 (58)	52 (-17)	58 (12)	89 (53)	84 (-06)	64 (-24)
Not Classified	5	7 (40)	31 (3.43)	3 (-90)	3 (00)	1 (-66)	
TOTALS	1,712	2,224 (30)	2,646 (19)	2,020 (-24)	2,043 (01)	2,053 (01)	1,755 (-14)

Interpretation: The social security numbers of 1979-80 personnel were compared to social security numbers of professional employees in 1980-81. Those not matched were defined as "newly employed". There were 547 newly employed teachers of mentally impaired (SA) in 1979-80 and 396 newly employed in 1980-81. This was a decrease of 28%.

TABLE 3 - BEGINNING PERSONNEL NEWLY EMPLOYED IN 1980-81 IN SPECIAL EDUCATION ASSIGNMENTS

					Highest Degree		Instructional Level					
SPECIALTY	NO.	MALE	FEMALE	MEAN AGE	BA	MED or HIGHER	ALL GRADES	ELEM.	Jr/Hi	Sr/Hi	OTHER	MEAN SALARY
Mentally Hand. (SA)	136	26	110	23	134	2	22	50	24	26	14	$12,653
Speech (SB)	49	5	44	23	23	46	28	17	1	1	2	13,066
Ortho. Hand. (SC)	7	-	7	21	7	-	1	2	1	1	2	13,964
Social Worker (SD)	31	4	27	29	2	29	23	4	3	1	-	15,621
Emot. Impaired (SE)	141	26	115	24	137	4	18	67	29	20	6	12,842
School Psychologist (SG)	23	10	13	31	3	20	19	1	1	1	1	16,942
Homebound (SH)	3	-	3	24	3	-	2	1	-	-	-	13,145
Consult. P. Imp. (SI)	3	-	3	23	2	1	1	1	1	-	-	14,615
Blind (SK)	4	-	4	24	3	-	2	1	-	-	-	13,367
Hearing Imp. (SL)	20	1	19	22	19	1	7	10	3	-	-	12,795
Learn Disabled (SM)	91	14	77	24	82	9	13	39	24	12	3	12,974
Trainable (ST)	6	4	2	23	5	1	3	2	1	-	-	13,155
Occupt. Physical Therapy (NU)	19	2	17	24	15	4	11	4	1	2	1	14,280
TOTALS	533	92	441	24	435	98	152	199	89	66	27	13,272

Interpretation: Only teachers with primary assignment in special education were included in the analysis. Beginning teachers had no previous teaching experience. There were 136 beginning teachers of mentally handicapped pupils employed in 1980-81. Of this group 26 were male and 110 were female, with an average age of 23 years.

TABLE 4 - EXPERIENCED PERSONNEL EMPLOYED IN 1980-81 IN SPECIAL EDUCATION ASSIGNMENTS

SPECIALTY	NO.	MALE	FEMALE	MEAN AGE	Highest Degree BA	Highest Degree MED or HIGHER	Highest Degree ALL GRADES	Instructional Level ELEM.	Instructional Level Jr/Hi	Instructional Level Sr/Hi	Instructional Level OTHER	MEAN SALARY
Mentally Hand. (SA)	247	46	201	31	171	76	64	75	47	42	19	$16,971
Speech Corr. (SB)	128	11	117	30	57	71	77	38	3	8	2	17,252
Orth. Hand. (SC)	21	5	16	31	16	5	11	4	2	3	1	17,525
Social Worker (SD)	71	18	53	33	3	68	59	8	2	1	1	19,459
Emot. Imp. (SE)	217	37	180	30	137	80	38	80	47	42	10	17,999
Diagn. (SF)	4	2	2	29	-	4	3	-	-	-	1	18,257
School Psychologist (SG)	45	16	29	33	2	43	40	4	-	-	1	19,568
Homebound (SH)	12	1	11	30	8	4	11	-	-	1	-	16,200
Consult. P. Imp. (SI)	6	2	4	36	1	5	3	2	-	-	1	19,950
Blind (SK)	11	2	9	37	7	4	8	1	1	-	1	17,024
Hearing Imp. (SL)	49	3	46	29	28	21	12	17	11	6	3	17,908
Learn. Disabled (SM)	302	41	261	32	123	179	41	151	56	42	12	18,860
Trainable (ST)	33	10	23	31	25	8	23	3	2	5	-	17,384
Consult. Ment. Hand. (SU)	17	2	15	32	6	11	5	5	4	2	1	18,581
Occupt. Physical Therapy (NU)	45	3	42	29	34	11	36	7	-	1	1	17,463
TOTALS	1208	199	1009	31	618	590	431	395	175	153	54	17,973

Interpretation: Only teachers with primary assignment in special education were includedin the analysis. Experienced teachers had one or more years of teachers experience. There were 247 experienced teachers of mentally handicapped pupils newly employed in 1980-81. Of this group 46 were male and 201 were female with an average of 30 years.

TABLE 5 - SPECIAL EDUCATION PROFESSIONAL PERSONNEL EMPLOYED IN 1980-81
IN SPECIAL EDUCATION ASSIGNMENTS IN MICHIGAN PUBLIC SCHOOLS

					Highest Degree		Instructional Level					
SPECIALTY	NO.	MALE	FEMALE	MEAN AGE	BA	MED.or HIGHER	ALL GRADES	ELEM.	Jr/Hi	Sr/Hi	OTHER	MEAN SALARY
Mentally Hand. (SA)	3123	759	2364	33	1910	1212	883	1077	444	522	197	$19309
Speech Corr. (SB)	1586	213	1373	33	636	950	906	555	20	24	81	19924
Orth. Hand. (SC)	270	39	231	32	164	106	98	103	19	31	19	20090
Social Worker (SD)	1003	303	700	40	49	945	794	126	22	35	26	22598
Emot. Impaired (SE)	1945	469	1476	30	1203	742	393	829	330	266	127	18288
Diagn. (SF)	114	55	59	41	2	112	85	14	1	1	13	25078
School Psychologist (SG)	661	348	313	36	30	631	576	43	7	14	21	22403
Homebound (SH)	150	29	121	38	75	75	123	12	8	3	4	20783
Consult. P. Imp. (SI)	108	24	84	38	35	73	70	18	4	10	6	21322
Blind (SK)	171	28	143	33	87	84	117	28	7	10	9	20146
Hearing Imp. (SL)	597	65	532	33	272	325	173	184	63	59	104	20614
Learn. Disabled (SM)	2072	241	1831	32	848	1224	308	991	398	292	83	19379
Trainable (ST)	494	104	390	33	287	207	354	87	16	12	25	20217
Consult Ment. Hand. (SU)	276	89	187	36	73	203	101	76	27	51	21	22385
Occupt./ Physical Therapy (NU)	334	29	305	31	285	49	221	63	9	9	32	18479
TOTALS	12904	2795	10109	33	5956	6948	5202	4206	1375	1339	782	19953

Interpretation: There were 3123 teachers of mentally handicapped pupils in 1980-81.
Of this group 759 were male and 2364 were female, with an average of 33 years.

TABLE 6 - AGE DISTRIBUTION OF SPECIAL EDUCATION TEACHERS EMPLOYED IN 1980-81 SPECIAL EDUCATION ASSIGNMENTS IN MICHIGAN PUBLIC SCHOOLS

		PERSONS IN EACH AGE INTERVAL					PERCENT IN EACH AGE INTERVAL				
	Number	20-30	31-40	41-50	51-60	61/more	20-30	31-40	41-50	51-60	61/more
Mentally Hand. (SA)	3123	1721	756	333	276	37	55	24	11	9	1
Speech Corr. (SB)	1586	776	500	210	91	9	49	31	13	7	1
Orth. Hand. (SC)	270	155	60	34	18	3	57	22	13	7	1
Social Worker (SD)	1003	223	334	229	205	12	22	33	23	20	1
Emot. Imp. (SE)	1945	1274	449	159	60	3	66	23	8	3	-
Diagn. (SF)	114	14	37	43	20	-	12	33	38	17	-
School Psychologist (SG)	661	216	249	120	66	10	33	38	18	10	1
Homebound (SH)	150	56	35	25	31	3	37	23	17	21	2
Consult. P. Imp. (SI)	108	32	31	28	17	-	30	29	26	15	-
Blind (SK)	171	87	48	22	12	2	51	28	13	7	1
Hearing Imp. (SL)	597	308	157	81	44	7	52	26	14	7	1
Learn. Disabled (SM)	2072	1104	574	289	99	6	53	28	14	5	-
Trainable (ST)	494	261	134	55	34	10	53	27	11	7	2
Consult. Ment. Hand. (SU)	276	94	106	49	24	3	34	38	18	9	1
Occupt./ Physical Therapy (NU)	334	200	83	37	13	1	60	25	11	4	-
TOTALS	12904	6521	3553	1714	1010	106	51	28	14	7	1

Interpretation: Of the 3123 teachers of mentally handicapped pupils, 1721 were 20 to 30 years old. This age group contained 55% of the total (SA) group.

TABLE 7

RETURNING AND NEWLY EMPLOYED PROFESSIONAL PERSONNEL IN SPECIAL EDUCATION ASSIGNMENTS IN MICHIGAN PUBLIC SCHOOLS (1974-1981) SCHOOL YEAR

A. PERSONS RETURN FROM PRECEDING YEAR	74-75	75-76	76-77	77-78	78-79	79-80	80-81
NUMBER:	5,960	6,711	7,766	8,898	9,653	10,356	11,234
PROPORTION:	(777)	(751)	(746)	(819)	(825)	(834)	(865)
B. NEWLY EMPLOYED PERSONNEL							
NUMBER:	1,712	2,224	2,646	2,020	2,043	2,054	1,755
PROPORTION:	(223)	(249)	(254)	(183)	(175)	(166)	(135)
C. YEAR TOTALS							
NUMBER:	7,672	8,935	10,412	11,009	11,696	12,410	12,989
PROPORTION:	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)

Interpretation: A comparison of social security numbers was used to establish whether a teacher was newly employed or returning from the preceding year. There were 5,960 special education professional personnel employed in 1974-75 who were also employed in 1973-74. This 5,960 represents .777 of the special education staff of 7,672 employed in 1973-74. There were 1,712 or .223 newly employed professional personnel. Row C totals include persons who became supervisors of special education (AY).

TABLE 8 - ATTRITION OF SPECIAL EDUCATION PROFESSIONAL PERSONNEL (1973-1981)

1973-74 Teachers	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
a) Total Present	6889	5960	5418	4987	4588	4307	4109	3945
b) Percent Return	1.00	.87	.79	.72	.67	.63	.60	.57
c) Total Not Present		929	1471	1902	2301	2582	2780	2944
1974-75 Teachers								
a) Total Present		7610	6711	6079	5551	5189	4890	4687
b) Percent Return		1.00	.88	.80	.73	.68	.64	.62
c) Total Not Return			899	1531	2059	2411	2720	2923
1975-76 Teachers								
a) Total Present			8848	7766	6952	6147	6013	5734
b) Percent Return			1.00	.88	.79	.73	.68	.65
c) Total Not Return				1082	1896	2431	2835	3114
1976-77 Teachers								
a) Total Present				10205	8989	8257	7697	7312
b) Percent Return				1.00	.88	.81	.75	.72
c) Total Not Return					1216	1948	2508	2893
1977-78 Teachers								
a) Total Present					10815	9653	8883	8389
b) Percent Return					1.00	.89	.82	.78
c) Total Not Return						1162	1932	2426
1978-89 Teachers								
a) Total Present						11592	10356	9656
b) Percent Return							.89	.83
c) Total Not Return							1236	1936
1979-80 Teachers								
a) Total Present							12410	11220
b) Percent Return								.90
c) Total Not Return								1190

TABLE 9 - ATTRITION OF SPECIAL EDUCATION TEACHERS EMPLOYED IN MICHIGAN PUBLIC SCHOOLS DURING SIX YEARS (1974-1981)

	A	B	C	D	E	F	G	H	I	J	K	L
	Tchr. Employ 74-75	Tchr. Remain 80-81	Tchr. Employ 75-76	Tchr. Remain 80-81	Tchr. Employ 76-77	Tchr. Remain 80-81	Tchr. Employ 77-78	Tchr. Remain 80-81	Tchr. Employ 78-79	Tchr. Remain 80-81	Tchr. Employ 79-80	Tchr. Remain 80-81
Ment. Hand. (SA)	2228	1360(60)	2369	1529(64)	2771	1986(72)	2875	2229(77)	2945	2438(83)	3126	2810(90)
Speech Corr.(SB)	1139	767(67)	1209	842(70)	1392	1046(75)	1419	1130(80)	1479	1268(86)	1528	1398(91)
Orth. Hand.(SC)	203	121(60)	2214	142(66)	261	191(73)	266	205(77)	266	224(84)	262	243(93)
Social Worker(SD)	863	551(64)	939	624(66)	920	668(73)	931	736(79)	969	810(84)	990	901(91)
Emot. Imp.(SE)	887	514(58)	1089	674(62)	1252	875(70)	1379	1043(76)	1552	1253(81)	1687	1495(89)
Diagn.(SF)	254	180(71)	195	149(76)	173	141(81)	153	127(83)	141	126(89)	119	113(95)
School Psychologist(SG)	296	192(65)	398	275(69)	474	354(75)	527	424(80)	561	491(87)	619	580(94)
Homebound(SH)	148	88(59)	153	96(63)	171	116(68)	161	125(78)	157	133(85)	154	140(91)
Consult.P.Imp.(SI)	149	77(52)	137	77(56)	119	79(66)	119	86(71)	105	88(84)	103	95(92)
Blind(SK)	79	51(64)	86	59(69)	139	103(74)	151	119(79)	158	131(83)	165	154(93)
Hearing Imp.(SL)	334	201(58)	364	222(61)	428	302(71)	442	333(75)	447	362(81)	456	404(89)
Learn. Disabled(SM)	110	58(53)	651	398(61)	906	633(70)	1179	911(77)	1487	1245(84)	1799	1612(90)
Trainable(ST)	463	294(63)	502	336(67)	527	387(73)	509	414(81)	541	456(84)	492	451(92)
Consult. Ment. Hand.(SU)	203	108(53)	212	126(59)	207	136(66)	215	153(71)	226	181(80)	264	238(90)
Occupt./Physical Therapy(NU)	91	48(53)	142	86(61)	205	126(61)	219	150(68)	273	210(77)	317	270(85)
TOTALS	7457	4610(62)	8660	5635(65)	9945	7143(72)	10545	8184(78)	11307	9416(83)	12081	10904(90)

Interpretation: Col. A shows that there were 2228 teachers of mentally handicapped (SA) employed in 1974-75. Col. B shows 1360 or 61% of the (SA) teachers were still employed in 1980-81 in special education assignments in Michigan Public Schools. This represents a loss of 39% of these personnel after six years.

TABLE 10

INITIAL PROVISIONAL CERTIFICATE ENDORSEMENTS IN SPECIAL EDUCATION FIELDS IN CALENDAR YEARS 1979 AND 1980

	Calendar Year			
	1979	1980	Change	Prop. Change
Mentally Handicapped (SA)	503	430	-73	-14.5%
Speech Correction (SB)	170	111	-69	-40.6%
Orthopedically Hand. (SC)	120	90	-30	-25.0%
Emotionally Dist. (SE)	290	240	-50	-17.2%
Homebound (SH)	120	88	-32	-26.7%
Visually Handicapped (SK)	48	42	-6	-12.5%
Hearing Impaired (SL)	61	57	-4	-6.5%
Learning Disabilities (SM)	136	118	-18	-13.2%
TOTAL ENDORSEMENTS	1448	1176	-272	-18.8%

Interpretation: In 1980 there were 430 initial provisional certificate endorsements of teachers of mentally handicapped. This was 73 endorsements less than the preceding year or -14.5% change.

TABLE 11 NUMBER OF SPECIAL EDUCATION ENDORSEMENTS ON INITIAL PROVISIONAL CERTIFICATION RECOMMENDED BY MICHIGAN INSTITUTIONS DURING CALENDAR YEAR 1980

	Codes for Special Education Certificates								Total Endors. in	No.of Pers. Cert. in	Prov. Cert. Recom.
Institution	SA	SB	SC	SE	SH	SK	SL	SM	Sp.Ed.	Sp.Ed.	in Educ.
CMU	63	16	-	43	-	-	-	-	122	122	598
EMU	37	17	15	60	15	10	16	-	170	153	388
Grand Valley	54	-	1	46	1	-	6	24	132	69	187
Hope	-	-	-	6	-	-	-	14	20	19	77
Madonna	-	-	-	-	-	-	-	2	2	2	32
Marygrove	7	-	-	10	-	-	-	2	19	19	39
MSU	44	16	-	32	-	16	16	-	124	123	641
Nazareth	-	-	-	-	-	-	-	4	4	4	6
NMU	15	8	-	-	-	-	-	2	25	25	149
Oakland	-	-	-	-	-	-	-	1	1	1	77
Univ. of Detroit	-	-	-	-	-	-	-	4	4	4	26
Univ. of Michigan	7	1	2	3	2	4	-	-	19	16	281
WSU	57	11	55	1	55	5	1	-	185	75	305
WMU	20	10	10	16	10	5	-	-	71	61	398
Other Mich. Inst.	-	1	-	-	-	-	-	3	4	4	385
Mich. Totals	304	80	83	217	83	40	39	55	901	696	
Out-of-Mich. Totals	126	31	7	23	5	2	18	63	275	224	-
All U.S.	430	111	90	240	88	42	57	118	1176	920	-

Interpretation: In 1980 Central Michigan University (CMU) recommended 598 initial provisional certificates in education of which 122 were in special education.

TABLE 12 TOTAL NUMBER OF NEW ENDORSEMENTS RECOMMENDED BY MICHIGAN AND OTHER INSTITUTIONS FOR SPECIAL EDUCATION TEACHERS IN CALENDAR YEAR 1980

	Endorsement Codes								Total Sp.Ed.	Total Persons	All 1980	All
Institution	SA	SB	SC	SE	SH	SK	SL	SM	Endors.	Endors.	Endors.	Pers
CMU	186	69	7	124	6	1	4	25	422	372	2297	1228
EMU	175	74	64	223	66	25	51	120	798	620	2783	1408
Grand Valley	136	1	17	127	9	-	13	97	400	219	515	287
Hope	2	-	-	6	-	-	-	23	31	28	115	75
Madonna	2	-	2	21	2	-	-	41	68	59	143	89
Marygrove	15	1	-	24	-	1	1	50	92	72	196	95
MSU	126	26	9	94	8	25	24	30	352	308	2277	1228
Nazareth	-	-	-	-	-	-	-	4	4	4	4	4
NMU	64	13	-	5	-	-	2	19	103	92	502	302
Oakland	37	3	13	59	12	3	5	125	257	191	117	627
Saginaw	6	-	2	2	2	-	-	-	12	9	301	152
Univ. of Detroit	5	-	1	4	2	1	-	33	46	42	216	104
Univ. of Michigan	29	10	10	28	11	7	5	20	120	93	1035	576
WSU	185	29	120	50	118	13	10	68	593	321	1989	864
WMU	96	23	32	73	33	9	3	39	308	254	1786	984
Others	1	1	1	1	1	-	-	4	9	6	457	283
Mich Totals	1065	260	278	841	270	84	118	698	3614	2690		
Out-of-Mich.	156	49	11	40	8	5	24	90	383	285		
All U.S.	1221	309	289	881	278	89	142	788	3997	2975		

TABLE 13 - ADMINISTRATIVE PERSONNEL EMPLOYED IN SPECIAL EDUCATION 1980-81

SPECIALTY	NO.	MALE	FEMALE	MEAN AGE	ADMINISTRATIVE LEVEL ALL GRADES	ELEM.	Jr/Hi	Sr/Hi	CENTRAL ADMIN.	MEAN SALARY
Directors (AR)	199	153	46	42	85	12	-	3	99	$32332
Supervisors (AY)	205	124	81	39	133	14	4	15	39	28642
TOTAL	405	277	127	40	218	26	4	18	138	

Interpretation: There were 199 Directors of Special Education employed in Michigan Public Schools in 1980-81.

TABLE 14 - PROFESSIONAL EDUCATION OF SPECIAL EDUCATION ADMINISTRATORS EMPLOYED IN 1980-81

	INSTITUTION RECOMMENDED INITIAL TEACHING CERTIFICATION									HIGHEST DEGREE ACHIEVED			
Specialty	CMU	EMU	MSU	NMU	UM	WSU	WMU	Other Mich.	Out of State	BA	ME	Spec.	Doct.
Directors (AR)	16	25	40	7	16	29	22	11	33	2	148	31	18
Supervisors	18	33	33	4	14	25	30	15	33	11	167	15	12
TOTALS	34	58	73	11	30	54	52	26	66	13	315	46	30

Interpretation: There were 16 Directors of Special Education who recieved their initial teachers education at Central Michigan University.

TABLE 15 - ATTRITION OF SPECIAL EDUCATION ADMINISTRATORS (1974-1981)

1974-75 Administrators	1974-5	1975-6	1976-7	1977-8	1978-9	1979-80	1980-81
a) Total Present	183	164	145	130	125	119	112
b) Percent Return	1.00	.90	.79	.71	.68	.65	.61
c) Total Not Return		19	38	53	58	64	71
1975-76 Administrators							
a) Total Present		256	225	198	187	178	163
b) Percent Return		1.00	.88	.77	.73	.69	.64
c) Total Not Return			31	58	69	78	93
1976-77 Administrators							
a) Total Present			288	253	231	220	204
b) Percent Return			1.00	.88	.80	.76	.71
c) Total Not Return				35	57	68	84
1977-78 Administrtors							
a) Total Present				318	285	266	242
b) Percent Return				1.00	.90	.84	.76
c) Total Not Return					33	52	76
1978-79 Administrators							
a) Total Present					354	323	295
b) Percent Return					1.00	.91	.83
c) Total Not Return						31	59
1979-80 Administrators							
a) Total Present						387	347
b) Percent Return						1.00	.90
c) Total Not Return							40

TABLE 16 - ABSENCE OF SPECIAL EDUCATION TEACHERS
IN SELECTED SCHOOL DISTRICTS SOUTHEASTERN MICHIGAN (1978-9)

Field	A. No. of Persons	B. Days Absent (Mean)	C. Absent Rate % (B.190)	D. Salary (Mean)	E. Daily Rate (Mean; D/190)	F. Cost (Mean; B*E)	G. Total Cost (A*F)	H. Total Cost Absent
A. Samples Greater Than 25								
Ment.H. (SA)	125	9.0	4.7	17657	93	859	107375	1130.7
Speech (SB)	68	11.1	5.8	18038	95	1076	73168	761.4
Soc.Wk. (SD)	48	8.6	4.5	21185	111	977	46896	413.5
Emot.H. (SE)	80	7.7	4.0	16000	84	664	53120	618.5
Psychol. (SG)	31	7.3	3.8	20777	109	833	25823	228.7
Learn.D. (SM)	96	7.8	4.1	17263	91	723	69408	751.0
B. Samples Less Than 25								
Orth.H. (SC)	11	4.0	2.1	18181	85	346	3806	44.7
Diagnost. (SF)	7	5.3	2.8	24552	129	667	4669	37.1
Homebd. (SH)	8	5.0	2.6	18628	98	515	4120	40.2
Phys.Imp. (SI)	12	9.2	4.8	20652	108	959	11508	111.3
Blind (SK)	7	9.6	5.0	17007	89	870	6090	67.5
Deaf (SL)	20	6.5	3.4	17421	92	597	11940	130.6
Cons.M.R. (SU)	11	14.0	7.4	19125	100	1389	15279	155.0
C. All Special Ed. Teachers	524	8.5	4.5	18058	95	826	433202	4490.2

TABLE 17 - COMPARISON OF TEACHER DAYS ABSENT IN SPECIAL EDUCATION AREAS AND DAYS SUBSTITUTE TEACHERS WITH SPECIAL EDUCATION ENDORSEMENTS WERE EMPLOYED (1978-79)

	Endorsement Codes													
	SA		SB		SC		SE		SK		SL		SM	
District	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs
A	58	28.5	46	0	--	--	10	0	--	--	0	72	--	-
B	88.5	0	26	0	7.5	0	--	--	--	--	--	--	22.5	24.5
C	42.5	116	37	23.5	0	131	19.5	6	--	--	--	--	83.5	0
D	61.5	5.5	30.5	26	0	6.5	185	156	0	52.5	--	--	33.5	0
E	37.0	142	26.5	2	10.0	79	25	0	--	--	--	--	15.0	5
F	23	0	6	0	--	--	0	9	--	--	--	--	21.0	0
G	--	--	15	0	--	--	16	149	--	--	--	--	13.5	0
H	251	256	228	71	5.0	0	135	160	57	0	62.5	11	216.5	19
Sub-Totals	561.5	548.0	415	122.5	22.5	216.5	399.5	480	57	52.5	62.5	83	405.5	48.5

Interpretation: In school district "A" teachers of mentally impaired pupils (SA) were absent 58 days. Substitute teachers with endorsements in this area (SA), worked a maximum of 28.5 days in district "A" in 1978-79.

TABLE 17 (continued)

Endorsement Codes

	SA		SB		SC		SE		SK		SL		SM	
District	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs
I	26.5	25.3	128.7	8.8	--	27.5	62.3	2.5	--	--	--	--	114.5	3.0
J	143.2	234.0	24.7	2.0	12.2	20.0	55.7	147.0	10.5	--	18.6	5.0	69.0	14.0
K	229.0	239.0	38.5	--	8.0	40.0	33.0	55.0	--	--	--	2.5	71.0	-
L	6.0	--	8.0	--	--	52.0	4.5	66.0	--	--	--	--	35.0	-
M	159.0	67.0	146.5	12.5	2.0	2.0	67.5	42.0	--	--	49.5	--	56.0	3.0
Sub-Totals	563.7	565.8	346.4	23.3	22.2	141.5	223.0	312.5	10.5	0	68.1	7.5	345.5	20.0
Grand Totals	1125.2	1113.8	761.4	145.8	44.7	358.0	622.5	792.5	67.5	52.5	130.6	90.5	751.0	68.5